IPE JC37
SEP 07 2004
PATENT & TRADEMARK OFFICE

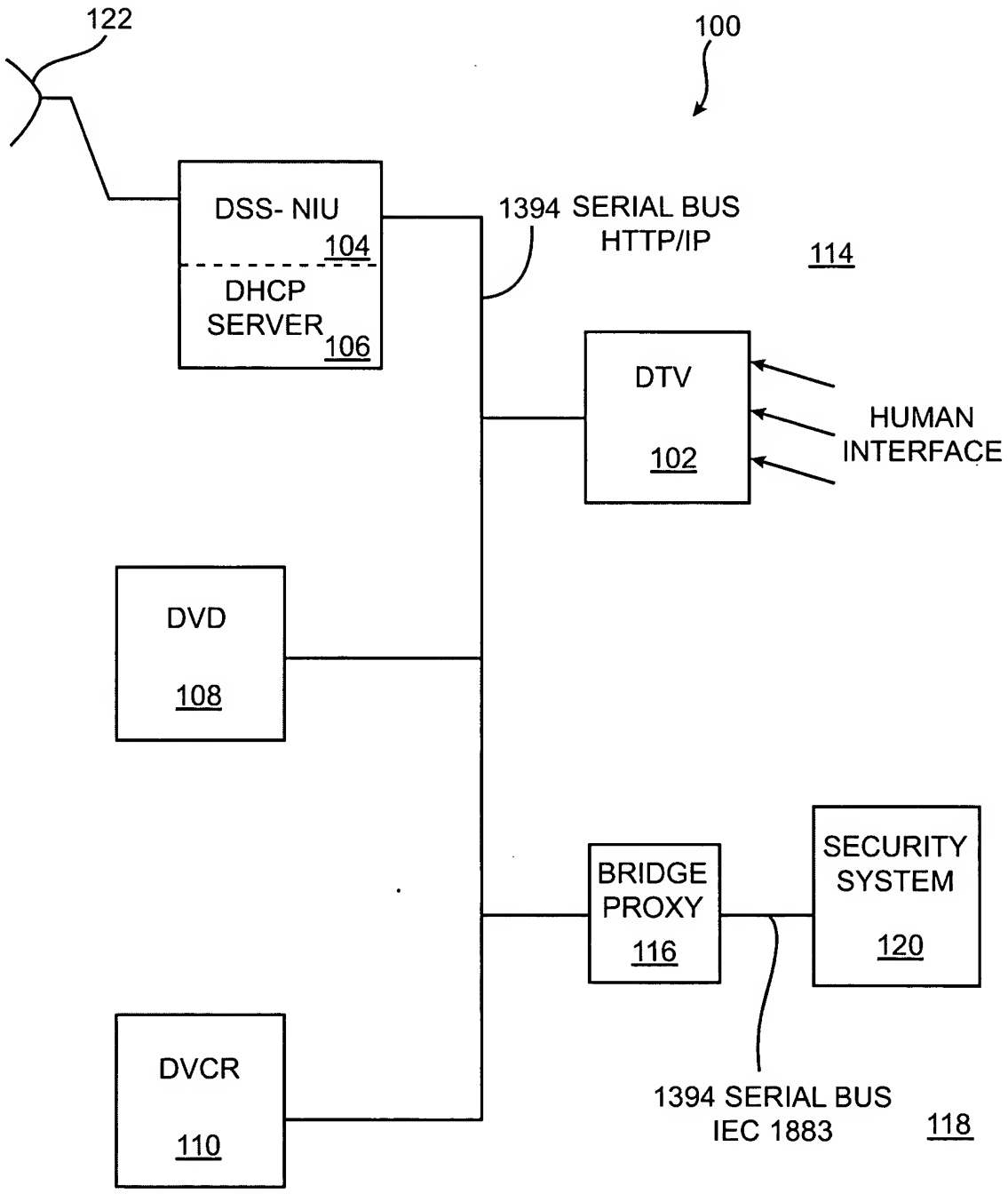


FIG. 1

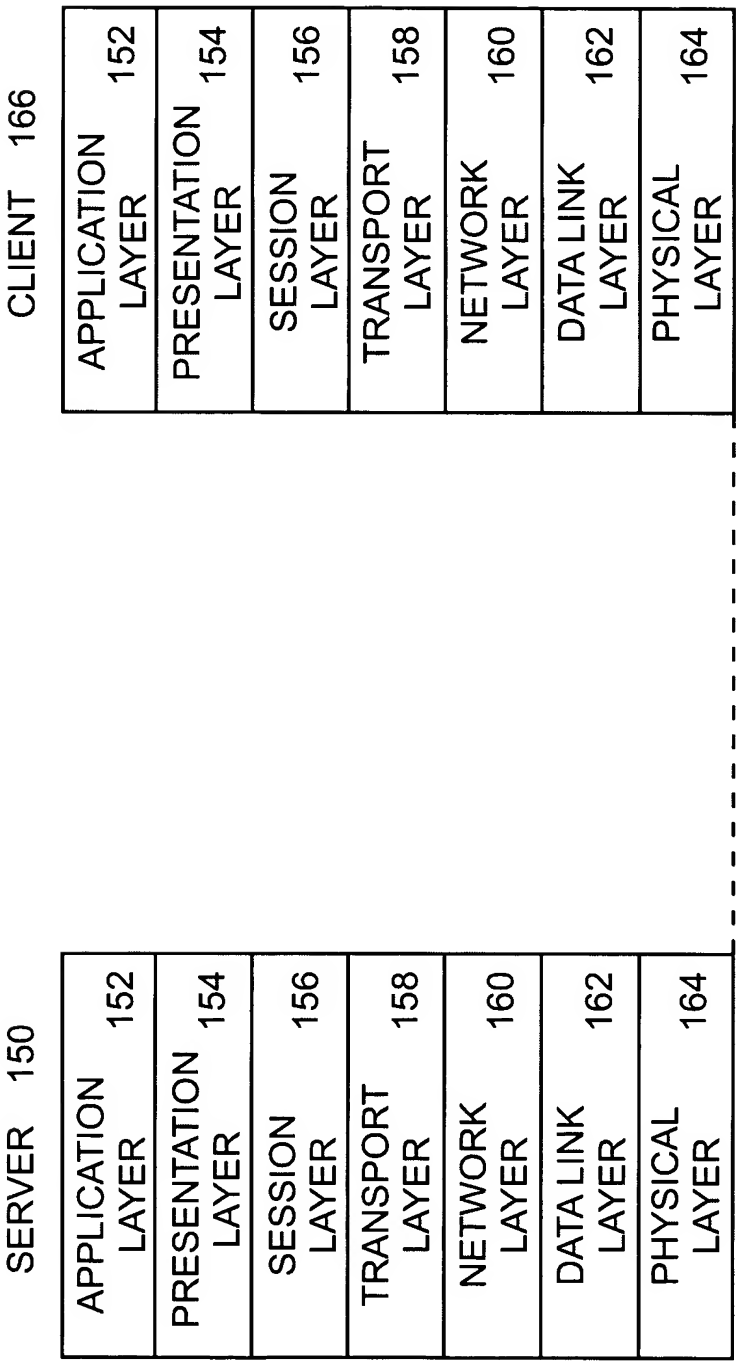
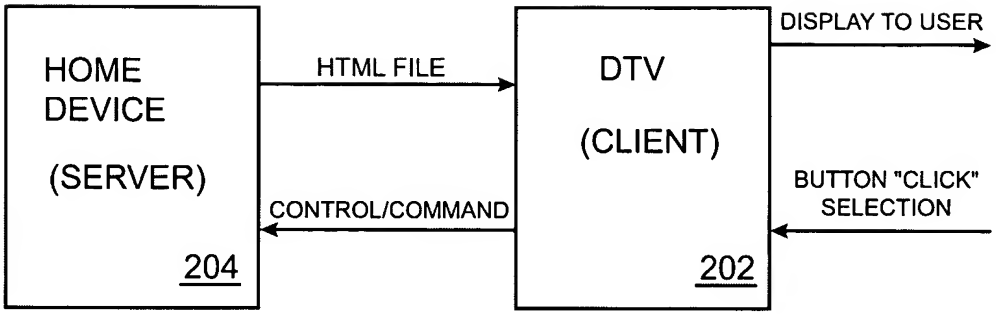

SERVER 150
APPLICATION LAYER 152
PRESENTATION LAYER 154
SESSION LAYER 156
TRANSPORT LAYER 158
NETWORK LAYER 160
DATA LINK LAYER 162
PHYSICAL LAYER 164
CLIENT 166
APPLICATION LAYER 152
PRESENTATION LAYER 154
SESSION LAYER 156
TRANSPORT LAYER 158
NETWORK LAYER 160
DATA LINK LAYER 162
PHYSICAL LAYER 164

FIG. 2

FIG. 3A


HOME
DEVICE
(SERVER)
204
HTML FILE
CONTROL/COMMAND
DTV
(CLIENT)
202
DISPLAY TO USER
BUTTON "CLICK"
SELECTION

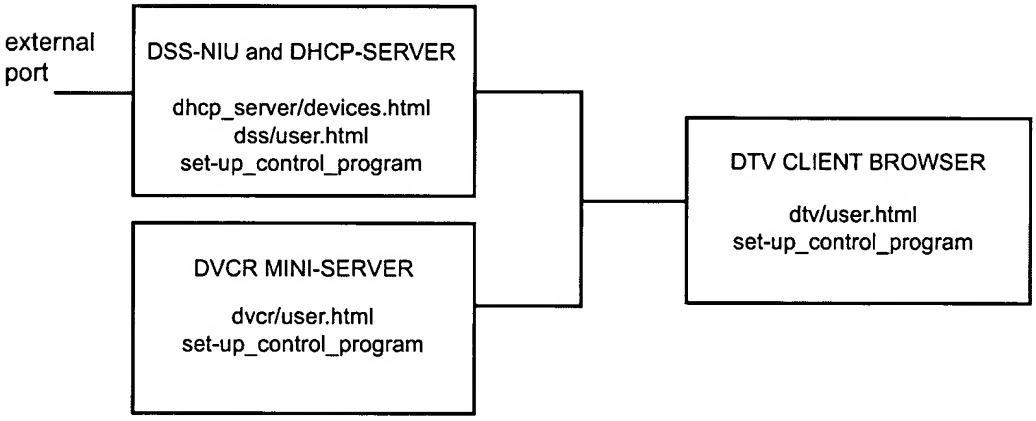

external
port
DSS-NIU and DHCP-SERVER
dhcp_server/devices.html
dss/user.html
set-up_control_program
DVCR MINI-SERVER
dvcr/user.html
set-up_control_program
DTV CLIENT BROWSER
dtv/user.html
set-up_control_program

FIG. 3B

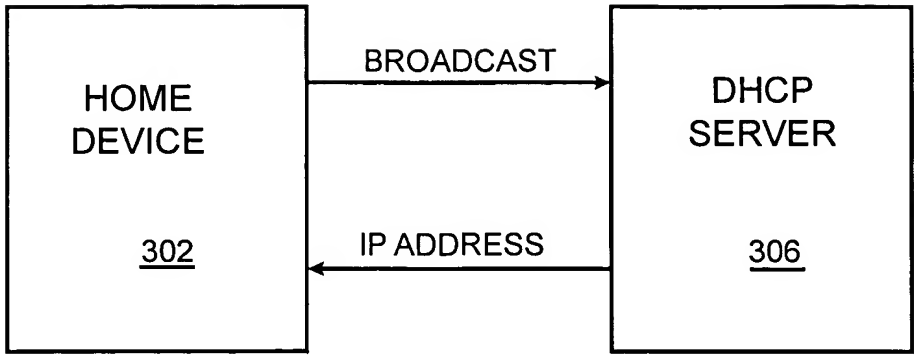

HOME
DEVICE
302
BROADCAST
IP ADDRESS
DHCP
SERVER
306

FIG. 4A

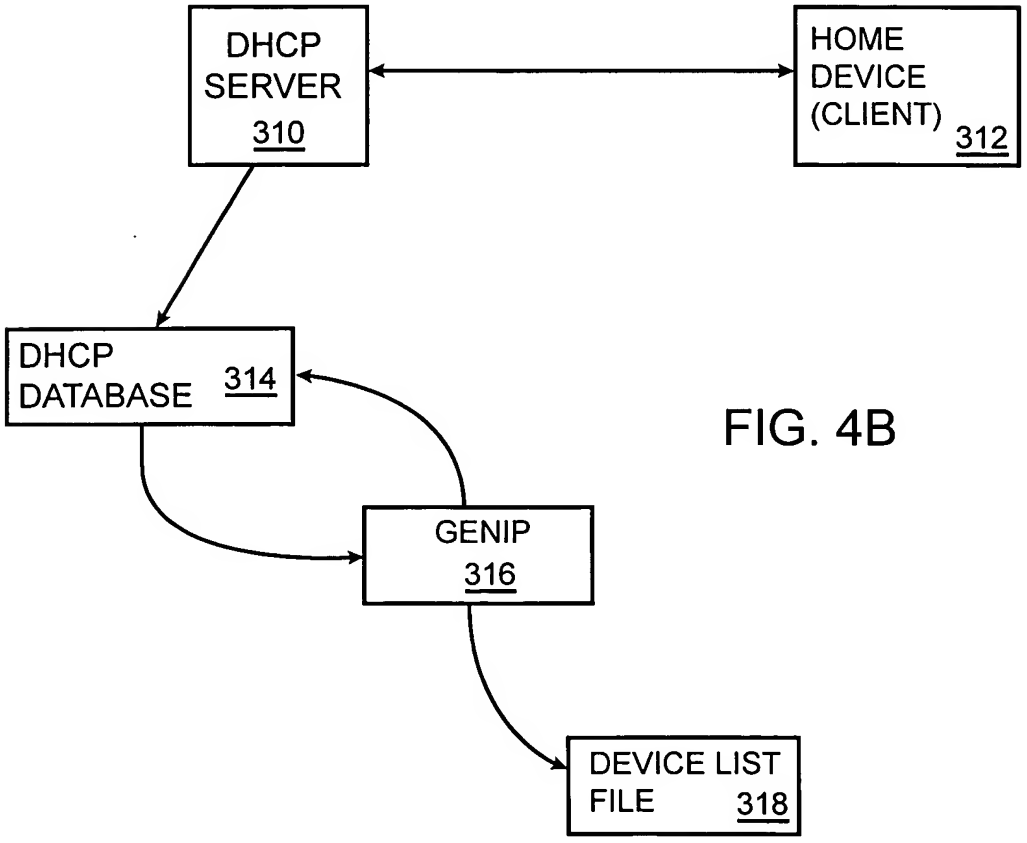

DHCP
SERVER
310
HOME
DEVICE
(CLIENT)
312
DHCP
DATABASE
314
GENIP
316
DEVICE LIST
FILE
318

FIG. 4B

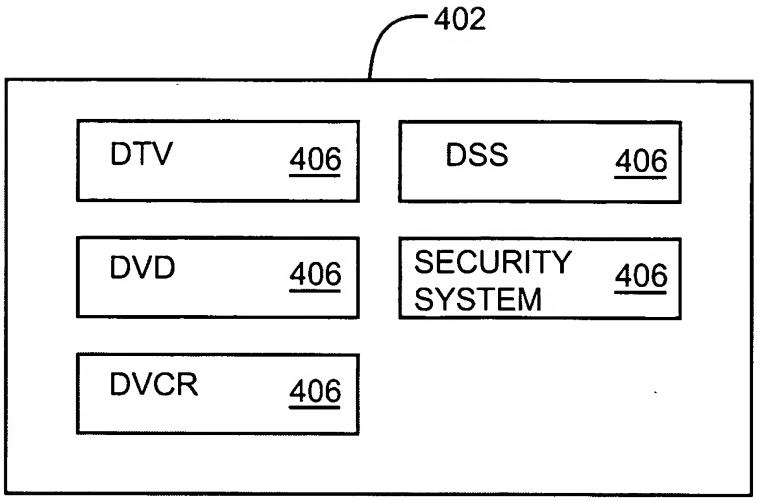

402
DTV 406
DSS 406
DVD 406
SECURITY SYSTEM 406
DVCR 406

FIG. 5A

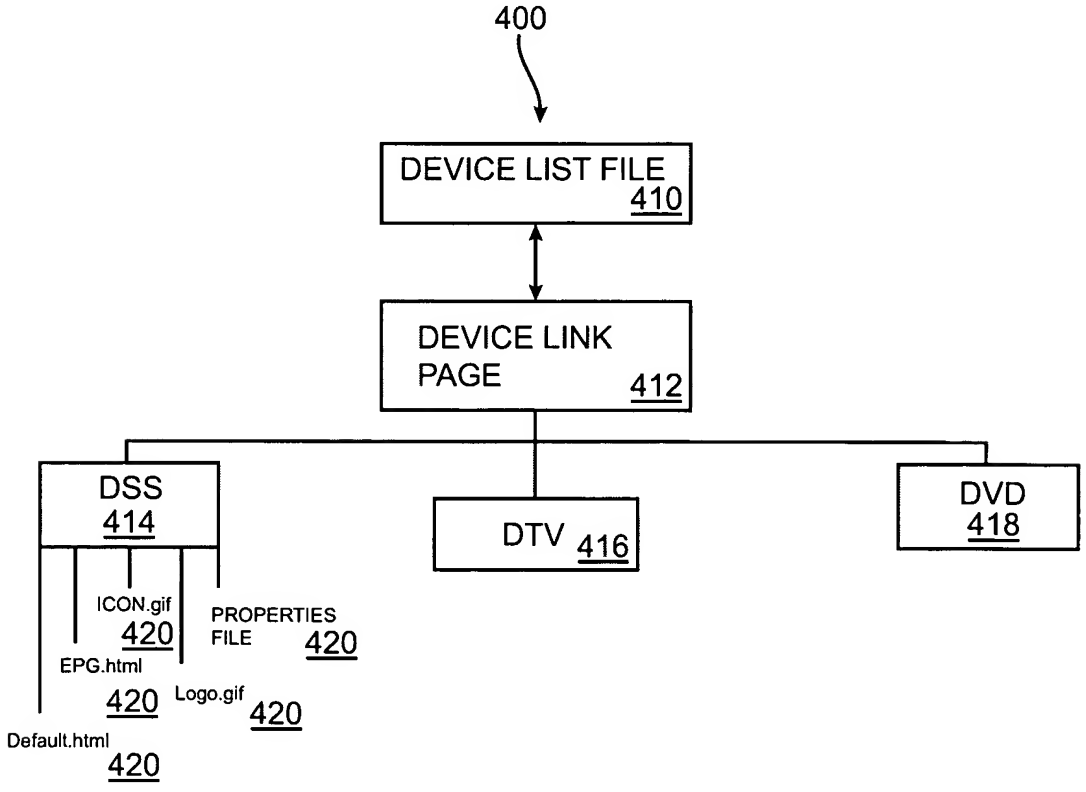

400
DEVICE LIST FILE 410
DEVICE LINK PAGE 412
DSS 414
DTV 416
DVD 418
ICON.gif 420
PROPERTIES FILE 420
EPG.html 420
Logo.gif 420
Default.html 420

FIG. 5B

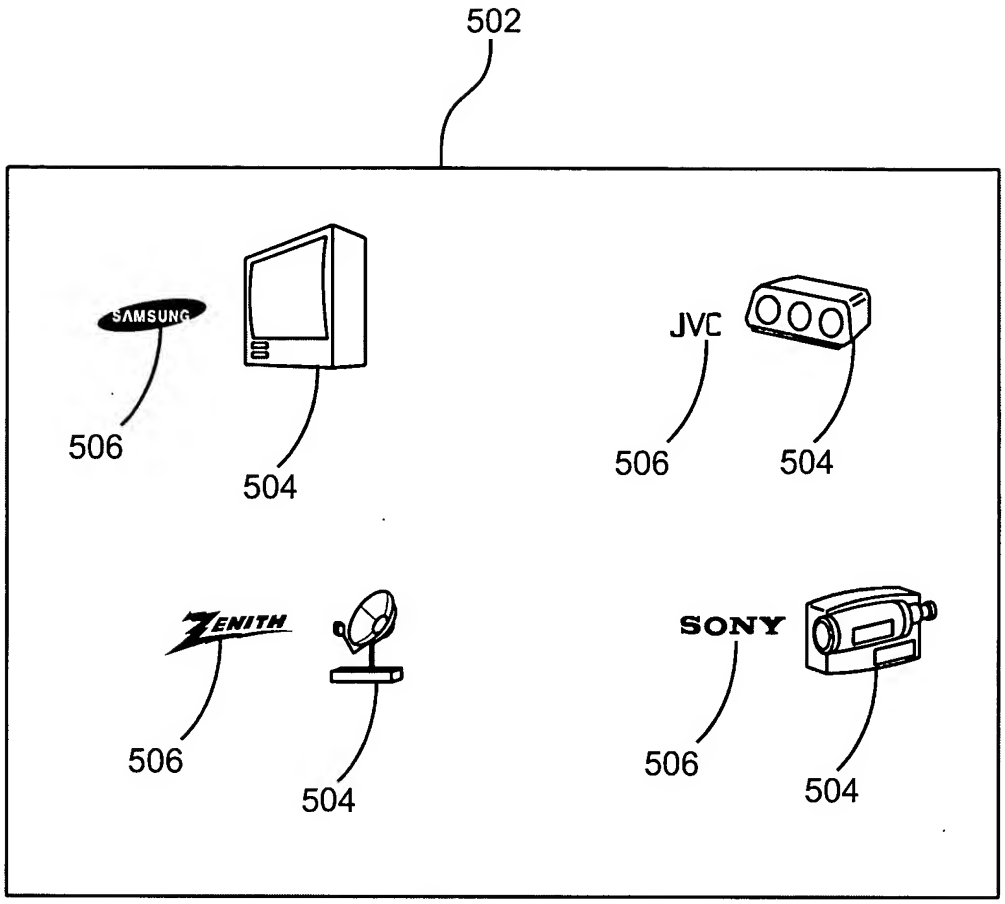


FIG. 6

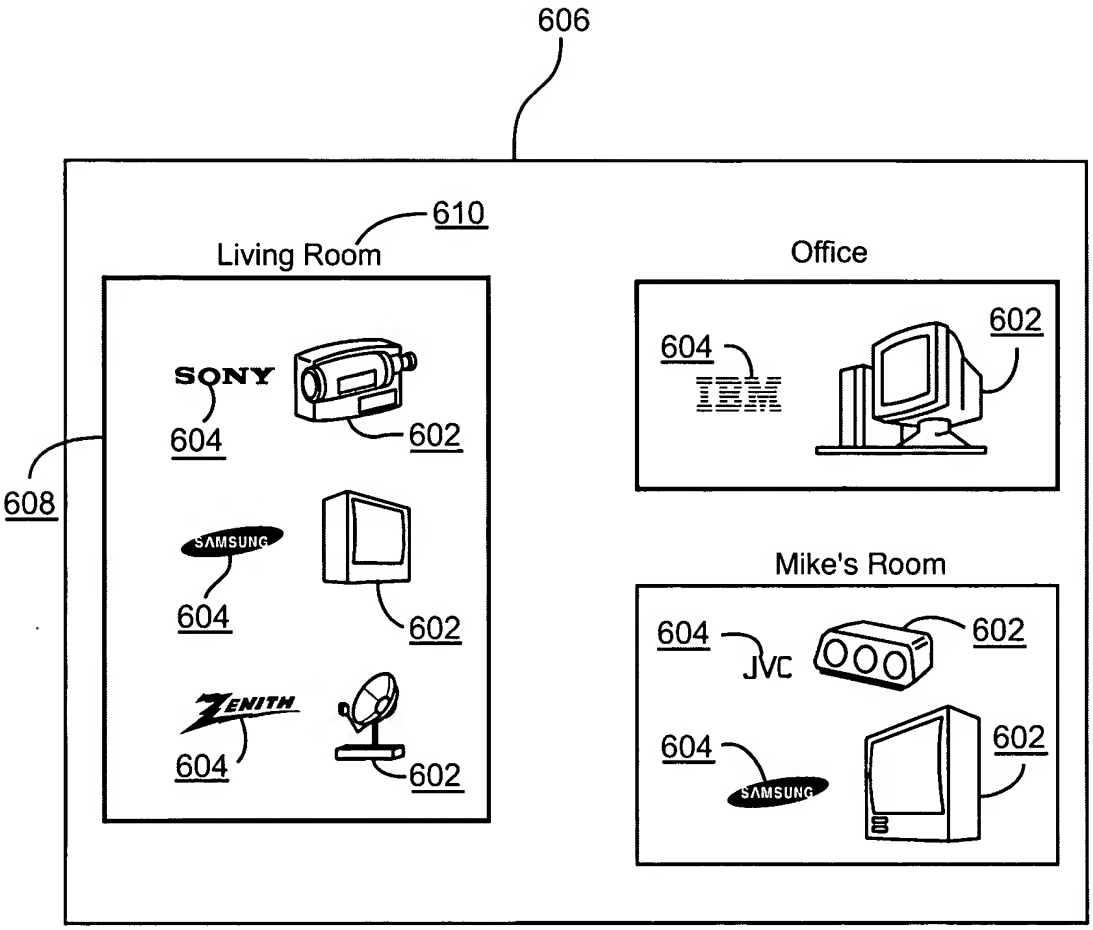

606
610
Living Room
Office
608
SONY
604
602
SAMSUNG
604
602
ZENITH
604
602
IBM
604
602
Mike's Room
JVC
604
602
SAMSUNG
604
602

FIG. 7

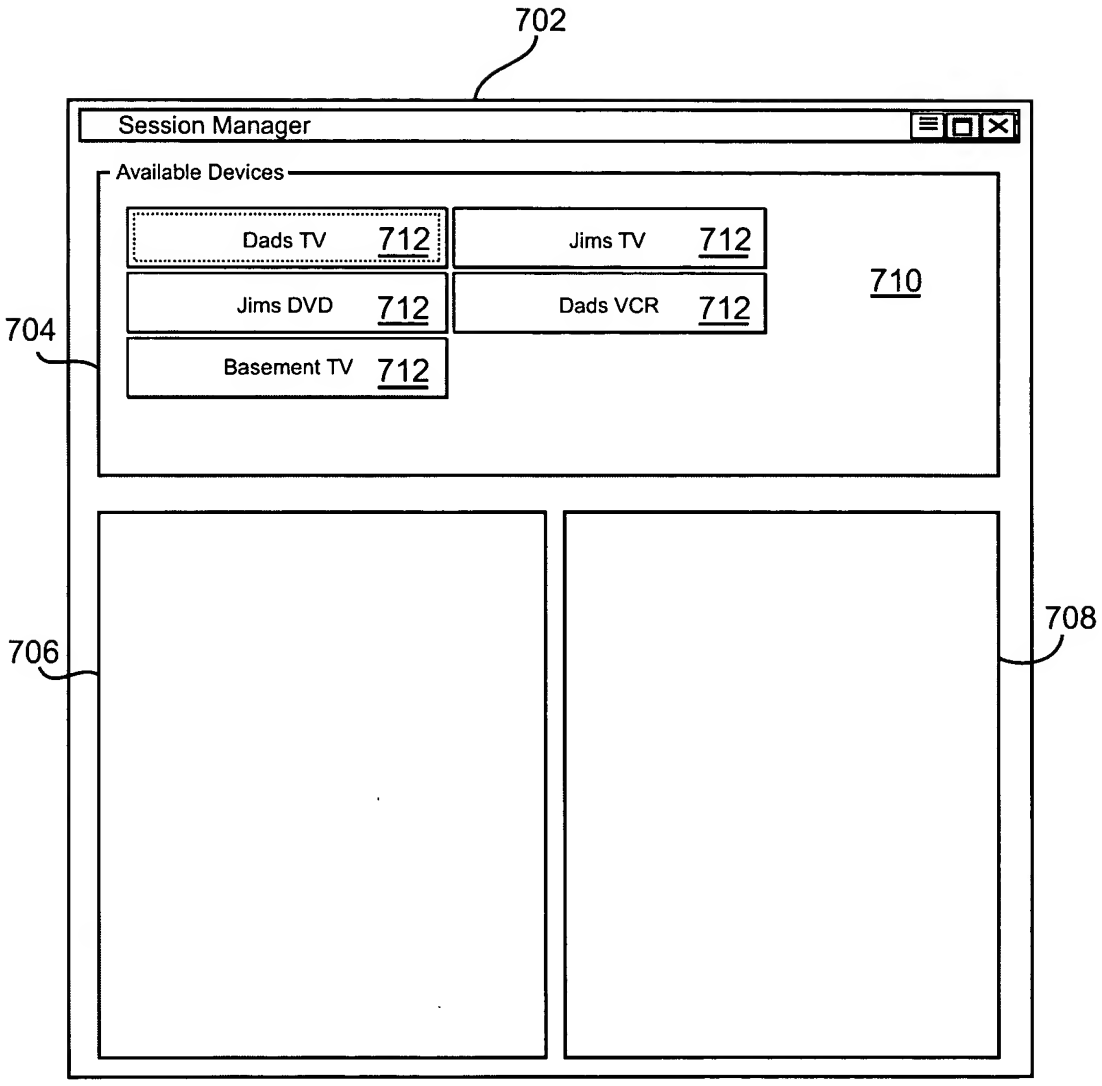

702
Session Manager
Available Devices
Dads TV 712
Jims TV 712
Jims DVD 712
Dads VCR 712
Basement TV 712
710
704
706
708

FIG. 8

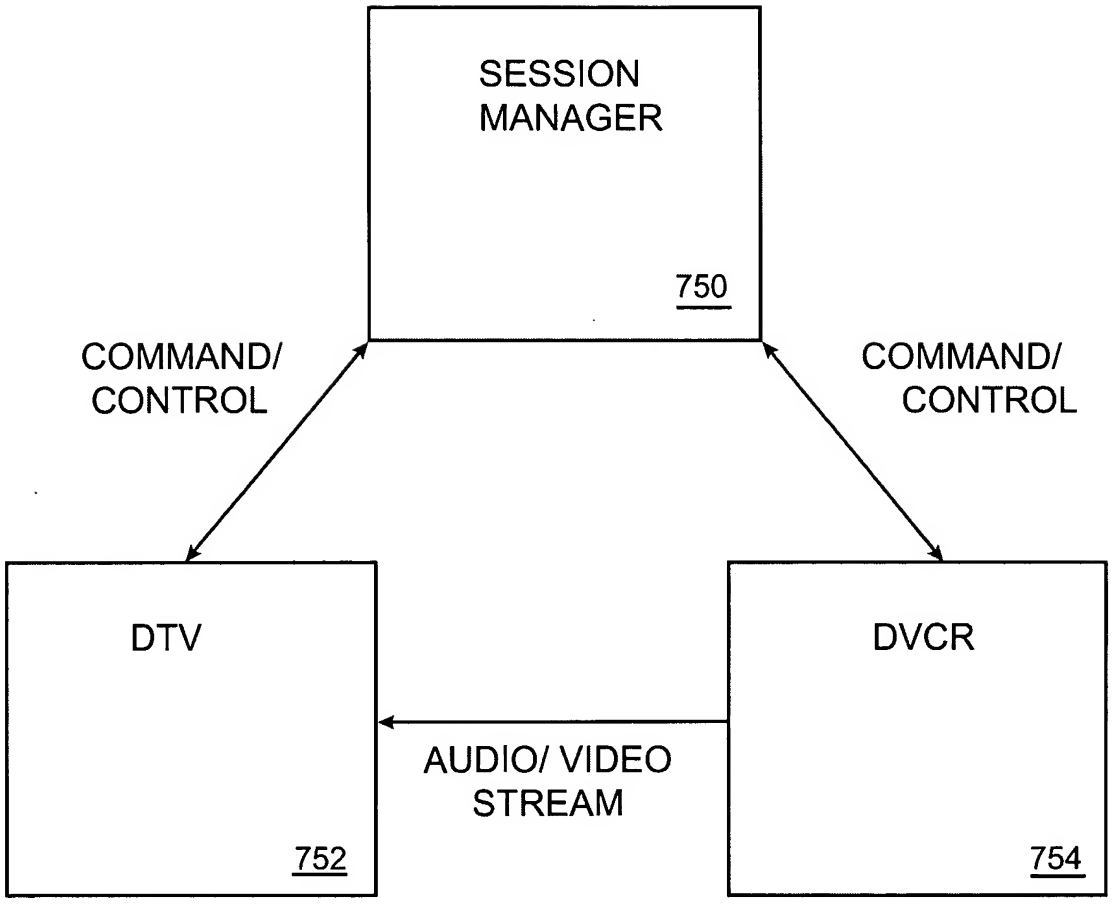

SESSION MANAGER
750
COMMAND/ CONTROL
COMMAND/ CONTROL
DTV
752
DVCR
754
AUDIO/ VIDEO STREAM

FIG. 9

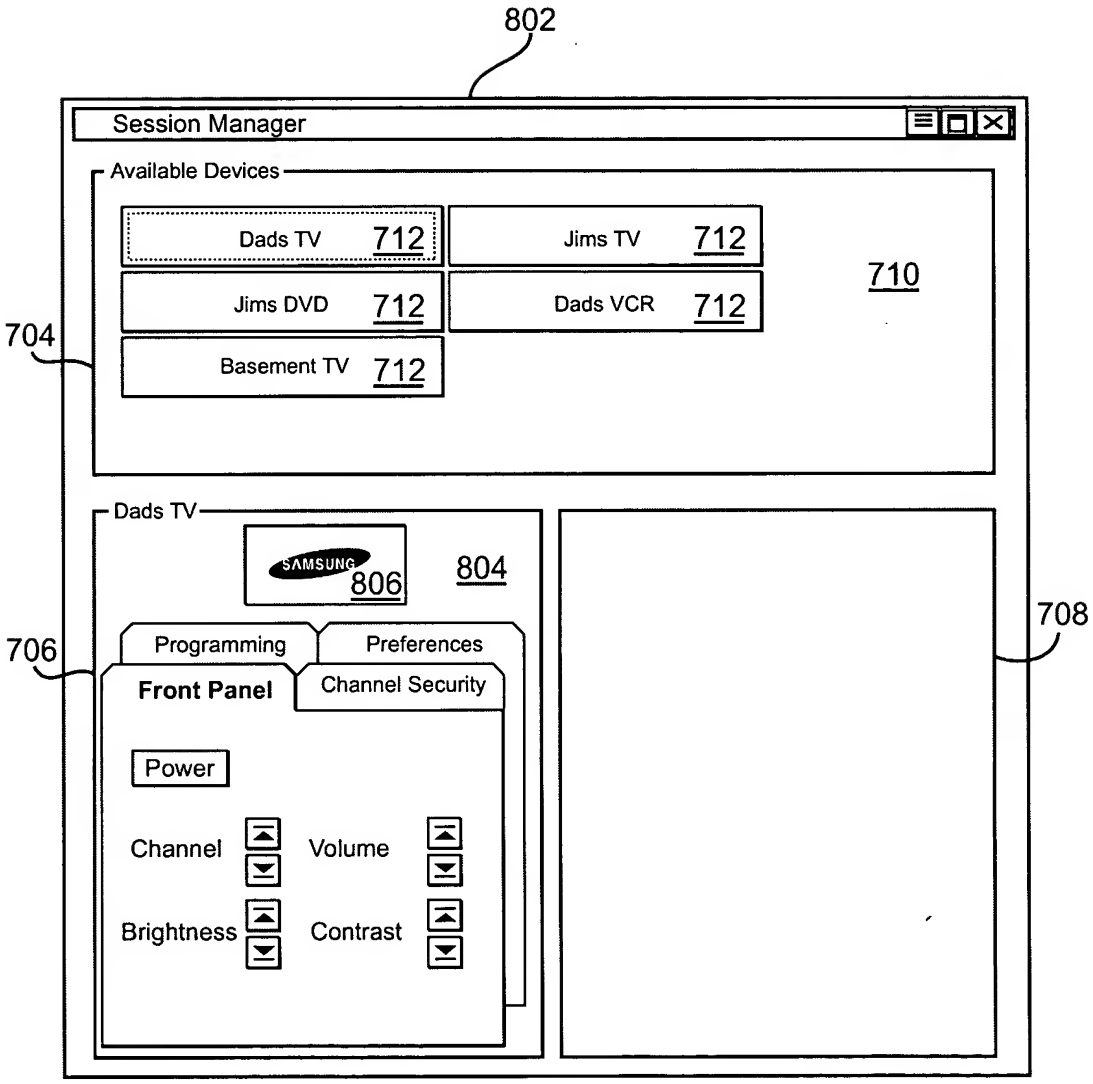

802
Session Manager
Available Devices
Dads TV 712
Jims TV 712
Jims DVD 712
Dads VCR 712
Basement TV 712
710
704
Dads TV
SAMSUNG
806
804
706
708
Programming
Preferences
Front Panel
Channel Security
Power
Channel
Volume
Brightness
Contrast

FIG. 10

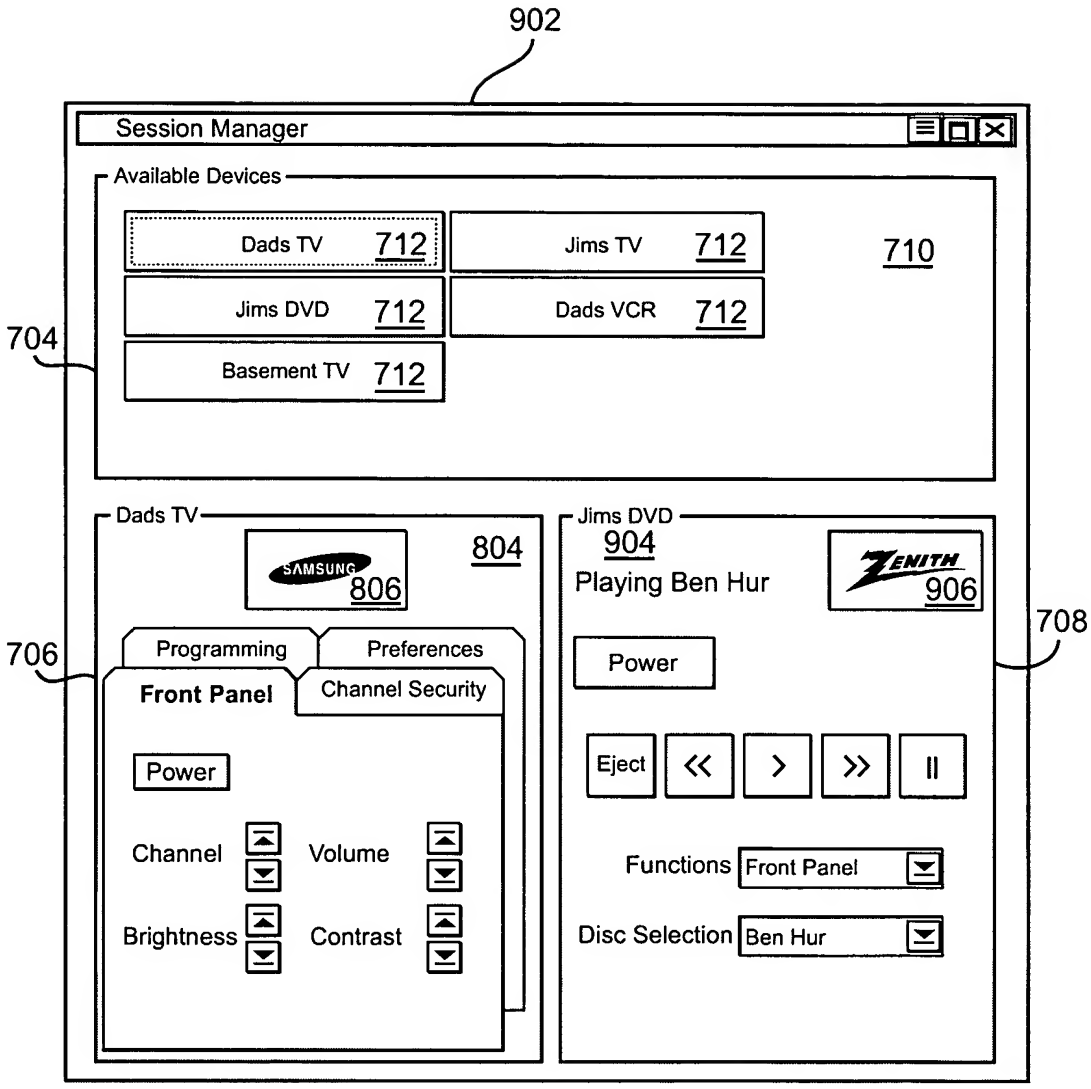

902
Session Manager
Available Devices
Dads TV 712
Jims TV 712
Jims DVD 712
Dads VCR 712
Basement TV 712
710
704
Dads TV
804
SAMSUNG
806
706
Programming
Preferences
Front Panel
Channel Security
Power
Channel
Volume
Brightness
Contrast
Jims DVD
904
Playing Ben Hur
ZENITH
906
708
Power
Eject
Functions
Front Panel
Disc Selection
Ben Hur

FIG. 11

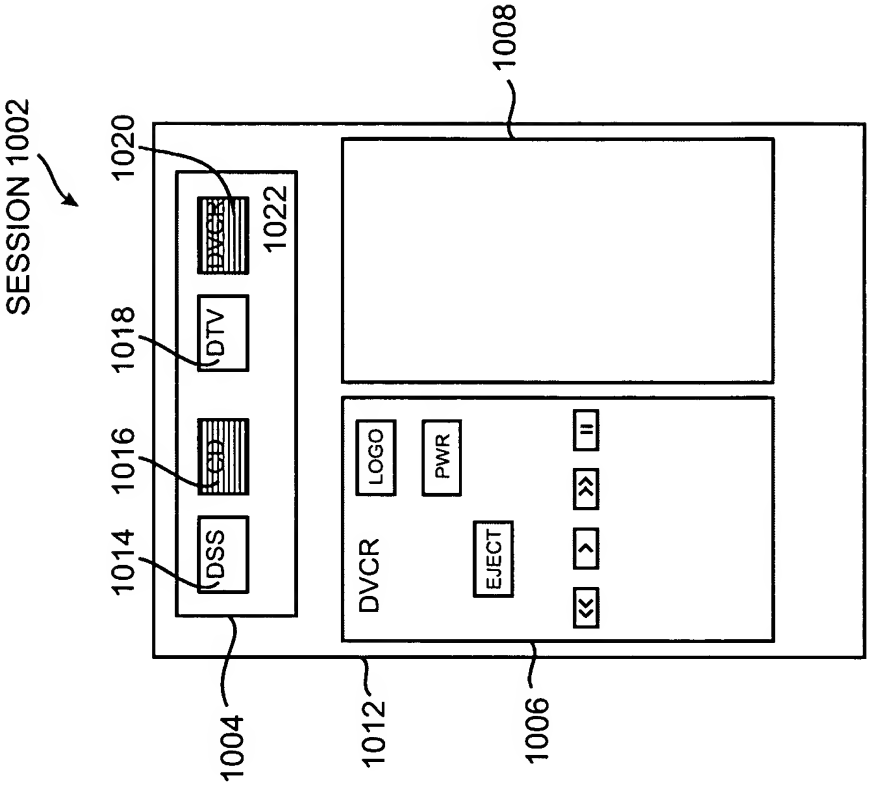


FIG. 12A

FIG. 12B

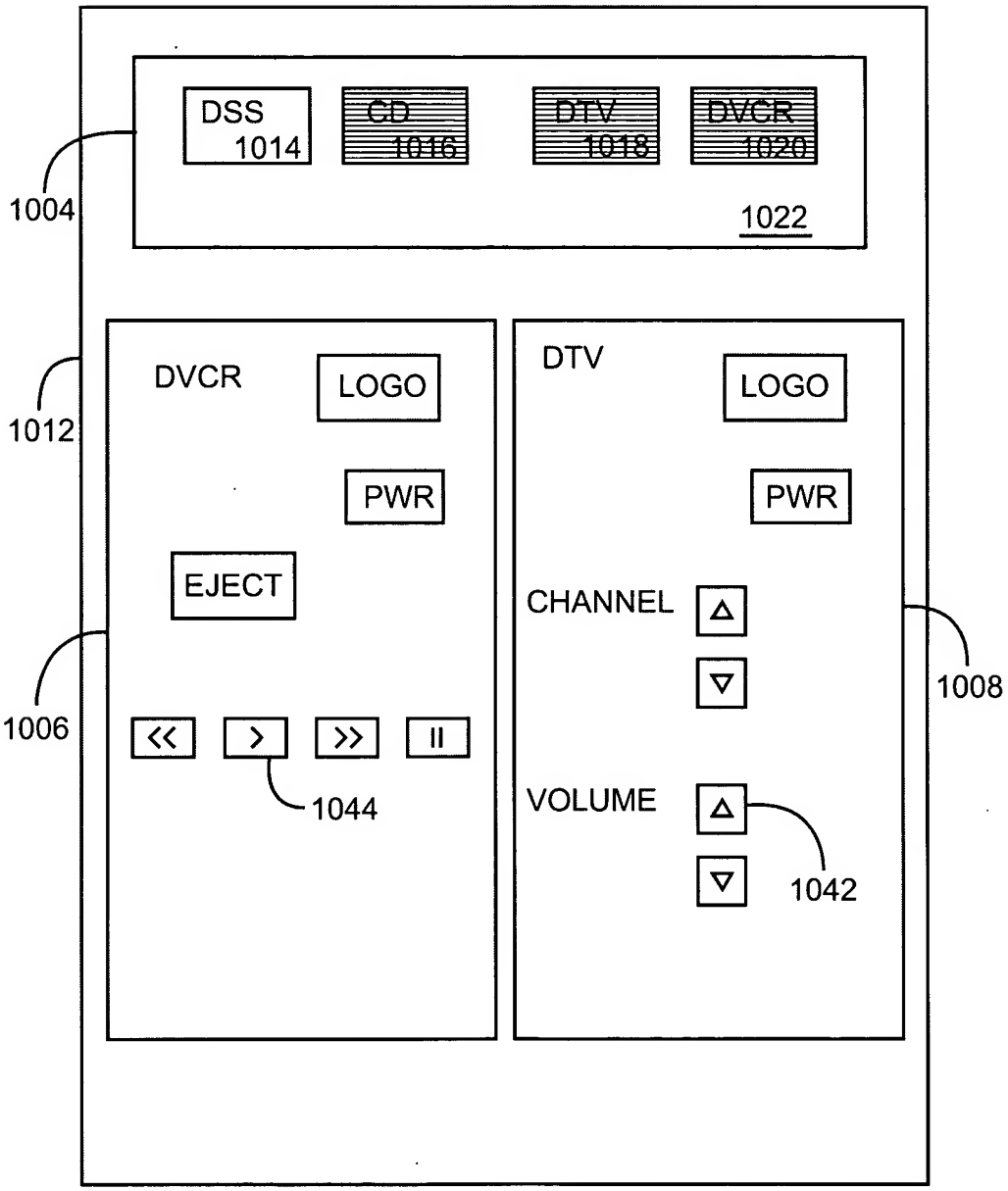

DSS
1014
CD
1016
DTV
1018
DVCR
1020
1022
1004
1012
DVCR
LOGO
PWR
EJECT
1006
1044
DTV
LOGO
PWR
CHANNEL
VOLUME
1042
1008

FIG. 13

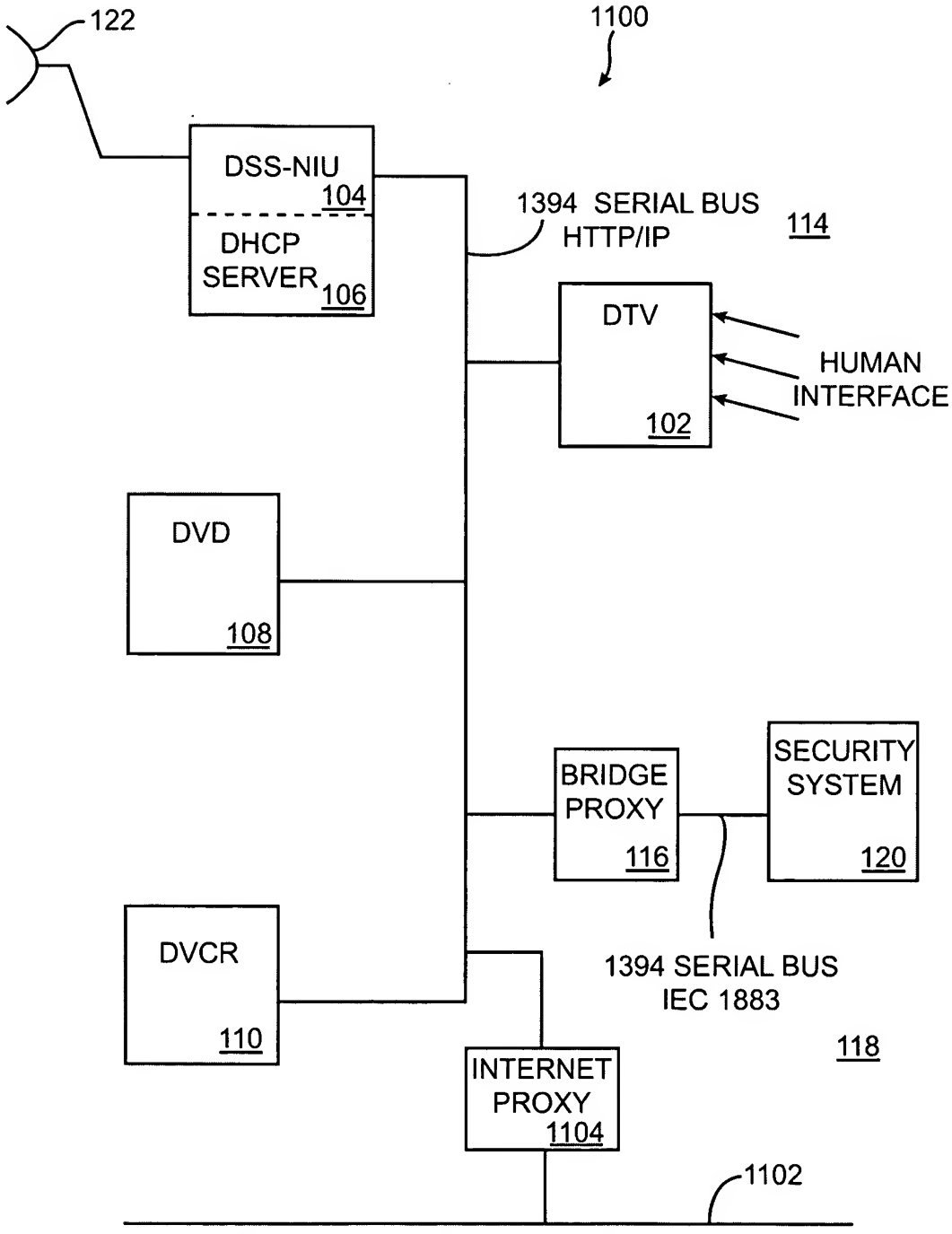

122
1100
DSS-NIU
104
DHCP
SERVER
106
1394 SERIAL BUS
HTTP/IP
114
DTV
102
HUMAN
INTERFACE
DVD
108
BRIDGE
PROXY
116
SECURITY
SYSTEM
120
DVCR
110
1394 SERIAL BUS
IEC 1883
118
INTERNET
PROXY
1104
1102

FIG. 14

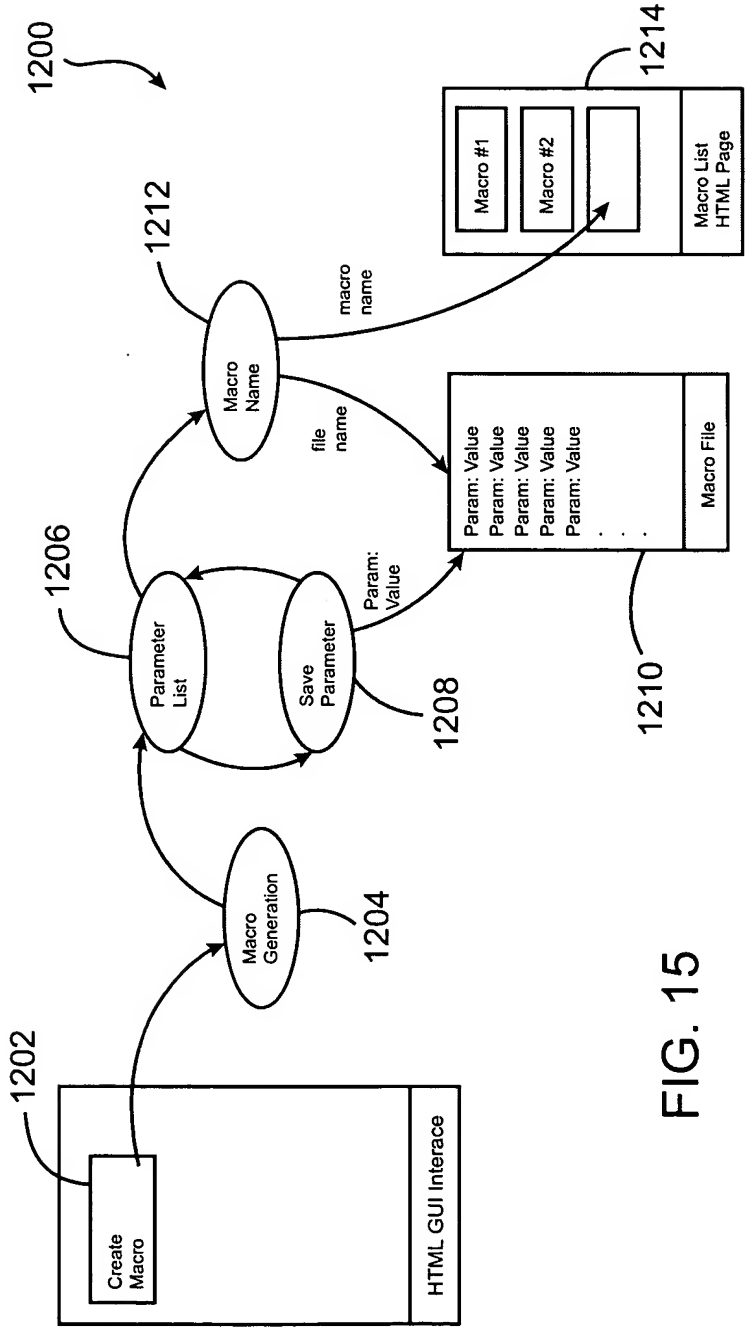

1200
1202
Create Macro
HTML GUI Interace
Macro Generation
1204
1206
Parameter List
Save Parameter
1208
Param: Value
1210
Param: Value
Param: Value
Param: Value
Param: Value
Macro File
file name
1212
Macro Name
macro name
1214
Macro #1
Macro #2
Macro List HTML Page

FIG. 15

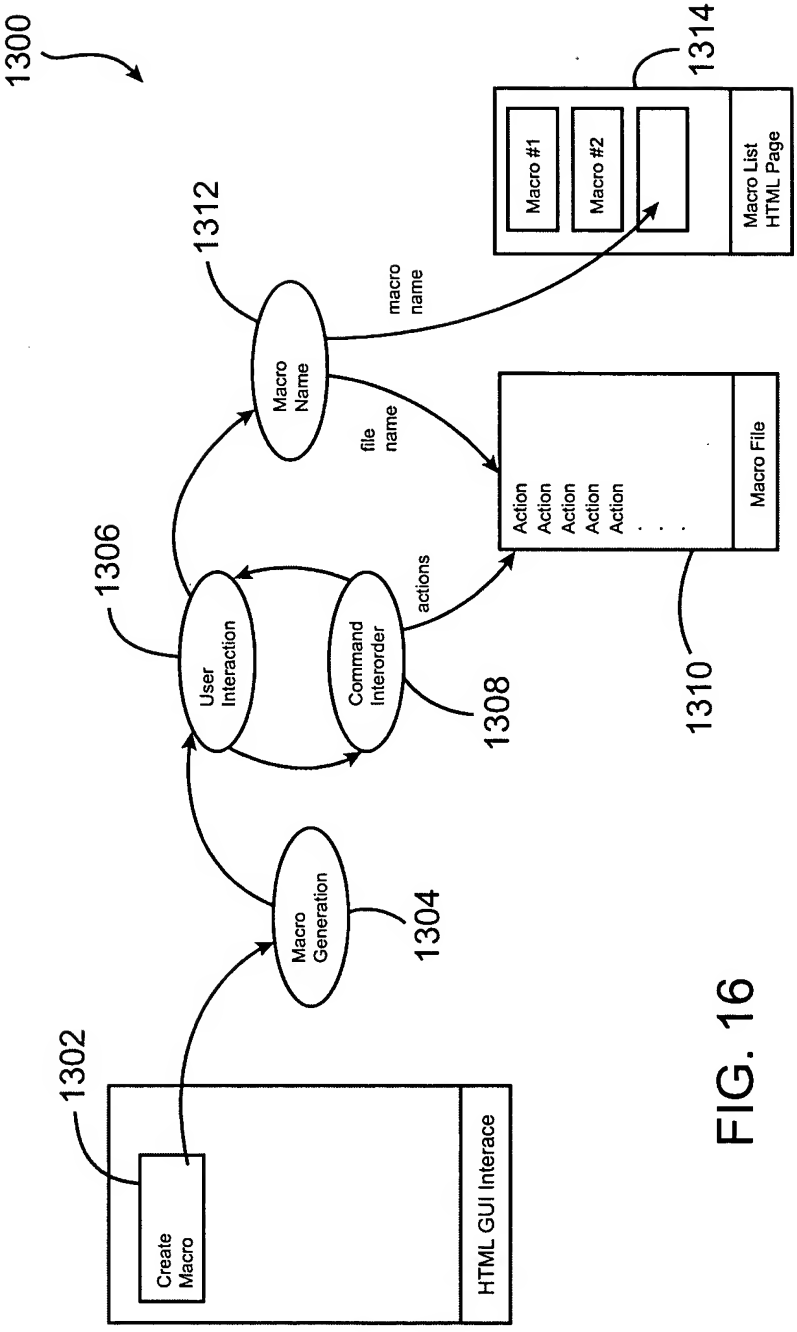

1300
1302
Create Macro
HTML GUI Interace
1304
Macro Generation
1306
User Interaction
Command Interorder
actions
1308
1310
Action
Action
Action
Action
Action
. . .
Macro File
file name
1312
Macro Name
macro name
1314
Macro #1
Macro #2
Macro List HTML Page

FIG. 16